

REMARKS

Favorable reconsideration and allowance of the claims of the present application, as amended herein, is respectfully requested.

Before addressing the specific grounds of rejection raised in the present Office Action, the applicants have amended Claims 12, 13, 14, 16, 19, 26 and 30 to positively recite that the claimed structures include alumina oxide that is characterized by FTIR as having absorption bands at  $400\text{ cm}^{-1}$  and  $1000\text{ cm}^{-1}$ , an absence of an adsorption band due to O-H stretching vibration of OH and H<sub>2</sub>O at  $3700\text{-}3000\text{ cm}^{-1}$  and an absence of an absorption band at  $581\text{ cm}^{-1}$ . Support for this amendment to the claims is found in Example 1, particularly page 14, line 30-page 15, line 13, and FIG. 4.

Applicants note that the term “ $\gamma$ ” has been deleted in view of the material contained in Example 1 and since the inventive method is performed at temperature of greater than  $500^{\circ}\text{C}$ . The remaining amendments to the claims were made to clarify the language within the claims.

Since the above amendments to the claims do not introduce any new matter into the specification of the instant application, entry thereof is respectfully requested.

Claims 12-30 and 32-38 stand rejected under 35 U.S.C. § 103 as allegedly unpatentable over the disclosure to Yom, et al., entitled “Growth of Alumina Thin Films on Silicon by Low Pressure MOCVD”, Thin Solid Films, 213 (1992), pp. 72-75 (herein after “Yom, et al.”).

Applicants respectfully submit that the applied reference does not teach or suggest alumina oxide having the features recited in the claims of the present application. Specifically, Yom, et al. do not teach or suggest alumina oxide that is characterized by

FTIR as having absorption bands at 400 cm<sup>-1</sup> and 1000 cm<sup>-1</sup>, an absence of an adsorption band due to O-H stretching vibration of OH and H<sub>2</sub>O at 3700-3000 cm<sup>-1</sup> and an absence of an absorption band at 581 cm<sup>-1</sup>. Applicants observe that the absorption band at 581 cm<sup>-1</sup> is indicative of  $\gamma$ -alumina oxide. In the claimed alumina oxide, which is deposited at temperatures of greater than 500°C, no  $\gamma$ -alumina oxide is present. In contrast, Yom, et al. disclose the formation of  $\gamma$ -alumina oxide which would inherently have the absorbance band at 581 cm<sup>-1</sup>. Applicants find no teaching or suggestion of the claimed alumina oxide that is characterized by FTIR as having absorption bands at 400 cm<sup>-1</sup> and 1000 cm<sup>-1</sup>, an absence of an adsorption band due to O-H stretching vibration of OH and H<sub>2</sub>O at 3700-3000 cm<sup>-1</sup> and an absence of an absorption band at 581 cm<sup>-1</sup>.

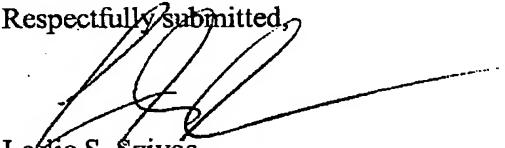
In view of the above amendments and remarks, applicants respectfully submit that the claims of the present application are not obvious in view of the disclosure of Yom, et al.

The § 103 rejection also fail because there is no motivation in the applied references which suggest modifying the disclosed structures to include the alumina oxide recited in the claims of the present invention. Thus, there is no motivation provided in the applied reference, or otherwise of record, to make the modification mentioned above. "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Vaeck, 947 F.2d, 488, 493, 20 USPQ 2d. 1438, 1442 (Fed.Cir. 1991).

The rejection under 35 U.S.C. § 103 has been obviated; therefore reconsideration and withdrawal thereof is respectfully requested.

Thus, in view of the foregoing amendments and remarks, it is firmly believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,

  
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